UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 March 2009</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,4,5,7,8 and 11-17</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,4,5,7,8 and 11-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 June 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some *   c)☐ None of:

         1.☒ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Remarks

Claims 1, 4, 5, 7, 8, and 11-17 are pending.

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the

fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection.

Since this application is eligible for continued examination under 37 CFR 1.114,

and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the

previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 3/18/2009 has been entered.

Response to Arguments

2.   Applicant's arguments with respect to claims 1, 4, 5, 7, 8, and 11-17 have

been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

3.   Claims 8, 11, 12, 15, and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Vandergeest (U.S. Patent 6,247,127) in view of Perlman (U.S.

Patent 5,261,002).

Regarding Claim 8,

Vandergeest discloses a certificate issuing apparatus for

issuing a server certificate indicating validity of a server apparatus,

the certificate issuing apparatus comprising:

A revocation data storage unit operable to store a revocation

data, the revocation data bring a criterion for judging validity of the

server certificate (Column 3, lines 25-65);

A revocation data update unit operable to update the

revocation data stored by the revocation data storage unit in order

to provide for revocation of identification data of server certificates

to be revoked (Column 2, lines 1-16; Column 3, lines 25-65; and

Column 4, lines 36-52); and

An issuing unit operable to issue a new server certificate

(Column 3, lines 25-65);

Wherein the issuing unit issues the new server certificate

that includes identification data indicating that the certificate is

currently valid (Column 3, lines 25-65);

But does not explicitly disclose that use of revocation and

identification numbers and use of such numbers in determining

validity of certificates.

Perlman, however, discloses use of revocation numbers and

identification numbers in place of and/or in addition to other

revocation and identification data (Abstract; and Column 7, line 27

to Column 8, line 19)

A revocation number update unit operable to update the

revocation number stored by the revocation number storage unit to

a number that is larger than an identification number of a server

certificate to be revoked, the revocation number update unit

updating the revocation number when being notified of the

identification number of the server certificate to be revoked

(Abstract; Column 7, lines 5-44; and Column 8, lines 16-19;

updating the start/expiration dates or sequence numbers); and

An issuing unit operable to issue a new certificate including

an identification number indicating a value that is equal to or larger

than the revocation number stored by the revocation number

storage unit (Abstract; Column 7, lines 5-44; and Column 8, lines

16-19; renewing of remaining valid certificates whose current or

previous certificates were issues between the old start date and

new start date); and

Wherein, when the revocation number update unit updates

the revocation number, the issuing unit issues the new server

certificate to another server apparatus that corresponds to a server

certificate including an identification number indicating a value that

is smaller than the updated revocation number (Abstract; Column 7,

lines 5-44; and Column 8, lines 16-19; renewing of remaining valid

certificates). It would have been obvious to one of ordinary skill in

the art at the time of applicant's invention to incorporate the

certificate revocation management techniques of Perlman into the

certificate verification system of Vandergeest in order to prevent

certificate revocation lists from becoming too large and thus

becoming difficult to manage, to provide a simple method of

checking validity of certificates, and/or to reduce the overhead

associated with renewing certificates.

Regarding Claim 15,

> Claim 15 is a method claim that corresponds to apparatus

claim 8 and is rejected for the same reasons.

Regarding Claim 17,

> Claim 17 is a computer-readable recording medium claim

that corresponds to apparatus claim 8 and is rejected for the same

reasons.

Regarding Claim 11,

> Vandergeest as modified by Perlman discloses the

apparatus of claim 8, in addition, Perlman discloses an expiration

date revocation number update unit operable to specify an

identification number of a server certificate, specify an approaching

expiration date, and update the revocation number stored by the

revocation number storage unit to a number that is larger than the specified identification number of the server certificate (Abstract; Column 7, lines 5-44; and Column 8, lines 16-19).

Regarding Claim 12,

Vandergeest as modified by Perlman discloses the apparatus of claim 11, in addition, Perlman discloses that, when the expiration date revocation number update unit updates the revocation number stored by the revocation number storage unit, the issuing unit issues the new server certificate to a server apparatus with a server certificate that is assigned an identification number that is smaller than the revocation number updated by the expiration date revocation number update unit (Abstract; Column 7, lines 5-44; and Column 8, lines 16-19).

4.   Claims 1, 4, 5, 7, 13, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vandergeest in view of Perlman, further in view of Zhao (U.S. Patent 7,117,360).

Regarding Claim 1,

Vandergeest discloses a communication apparatus for communicating with a server apparatus based on a server certificate, the communication apparatus comprising:

A revocation data obtainment unit operable to obtain a revocation data from a repository apparatus storing the revocation

data, the revocation data being a criterion for judging validity of the

server certificate (Column 3, line 66 to Column 4, line 28; and

Column 5, lines 25-49; requesting, receiving, and storing security

information, including revocation lists as well as a server certificate;

anytime server or server certificate is mentioned with respect to

Vandergeest, column 5, lines 32-35 is hereby inherently cited in this

action, showing that the request is for security information

regarding a server and, therefore, the targeted communication

entity is the server);

A revocation data judgment unit operable to judge validity of

the revocation data (Column 4, lines 36-52; showing verifying the

security information, including checking a validity period of the

revocation lists);

A revocation data storage unit operable to store the

revocation data obtained by the revocation data obtainment unit

(Column 3, line 66 to Column 4, line 28; and Column 5, lines 25-49;

as described above);

An identification data reading unit operable to read, from the

server certificate, an identification data that identifies the server

certificate (Column 4, line 53 to Column 5, line 49; obtaining

identifying information of the certificate);

A certificate judgment unit operable to judge the validity of

the server certificate by comparing the identification data that

identifies the server certificate with the revocation data stored by

the revocation number storage unit (Column 4, lines 8-41; checking

the certificate's information against the revocation lists);

A communication control unit operable to establish a

communication with a server apparatus when the certificate

judgment unit judges the server certificate to be valid, and operable

to disconnect a communication with the server apparatus when the

certificate judgment unit judges the server certificate not to be valid

(Column 4, lines 8-41; not participating in communications if the

certificate is invalid, and participating in communications if the

certificate is valid); and

Past revocation data, the past revocation data being

obtained by the revocation data obtainment unit before the

revocation data is obtained, stored by the revocation data storage

unit, and a criterion for judging the validity of the server certificate

(Column 4, lines 36-52; and Column 5, lines 25-49);

But does not explicitly disclose the use of revocation and

identification numbers, comparing such numbers to determine

validity of certificates, or comparing a revocation number with a

past revocation number to judge validity of the revocation number.

Perlman, however, discloses use of revocation numbers and

identification numbers in place of and/or in addition to other

revocation and identification data (Abstract; and Column 7, line 27

to Column 8, line 19; start dates and sequence numbers correlating

to the revocation and identification numbers);

A certificate judgment unit operable to judge the validity of

the server certificate by comparing the identification number that

identifies the server certificate with the revocation number stored by

a revocation number storage unit (Column 7, line 45 to Column 8,

line 19; comparing dates and/or sequence numbers to determine

validity of a certificate);

A past revocation number being obtained by a revocation

number obtainment unit before the revocation number is obtained,

stored by the revocation number storage unit, and a criterion for

judging the validity of the server certificate (Column 7, lines 14-44;

new blacklist including start date, expiration date, and/or sequence

numbers describing such); and

Wherein, when the revocation number judgment unit judges

the revocation number to be valid, the certificate judgment unit

judges whether or not the identification number that identifies the

server certificate is smaller than the revocation number stored by

the revocation number storage unit, judges that the server

certificate is not valid when the identification number that identifies

the server certificate is judged to be smaller than the revocation

number stored by the revocation number storage unit, and judges

that the server certificate is valid when the identification number

that identifies the server certificate is judges to be equal to or larger than the revocation number stored by the revocation number storage unit (Column 7, line 27 to Column 8, line 19; any certificates issued before the start date or starting sequence number are invalid, while certificates issued afterwards are considered valid unless on the blacklist). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the certificate revocation management techniques of Perlman into the certificate verification system of Vandergeest in order to prevent certificate revocation lists from becoming too large and thus becoming difficult to manage, to provide a simple method of checking validity of certificates, and/or to reduce the overhead associated with renewing certificates.

Zhao, however, discloses that the revocation number judgment unit judges the validity of the revocation number by comparing the revocation number with a past revocation number (Column 5, lines 41-61; last_changed value corresponding to the revocation number of the claims, corresponding to the start date, expiration date, and/or sequence number of Perlman, as discussed above). It would have been obvious to one of ordinary skill in the art a the time of applicant's invention to incorporate the revocation data updating system of Zhao into the certificate verification system of Vandergeest as modified by Perlman in order to avoid

processing newly received revocation data when such revocation data has not been updated and to provide a simple manner in which to determine whether the revocation data has been updated, thereby allowing the system to efficiently update revocation data.

Regarding Claim 14,

Claim 14 is a method claim that corresponds to apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 16,

Claim 16 is a computer-readable recording medium claim that corresponds to apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 4,

Vandergeest as modified by Perlman and Zhao discloses the apparatus of claim 1, in addition, Vandergeest discloses that the revocation data judgment unit further judges the validity of the revocation data stored by the revocation data storage unit by comparing an identification data of a repository certificate indicating validity of the repository apparatus with the revocation data stored by the revocation data storage unit (Column 4, lines 45-60; verifying that the entity that signed the security information has not been revoked); and Perlman discloses the use of revocation and identification numbers for this purpose (Abstract; and Column 7, line 27 to Column 8, line 19; as discussed above).

Regarding Claim 5,

Vandergeest as modified by Perlman and Zhao discloses the

apparatus of claim 4, in addition, Perlman discloses that the

revocation number judgment unit judges that the repository

apparatus is valid when the identification number of the repository

certificate is equal to or larger than the revocation number stored by

the revocation number storage unit (Abstract; and Column 7, line

27 to Column 8, line 19).

Regarding Claim 7,

Vandergeest as modified by Perlman and Zhao discloses the

apparatus of claim 1, in addition, Perlman discloses that the

revocation number judgment unit judges that the revocation number

obtained by the revocation number obtainment unit is valid when

the revocation number obtained by the revocation number

obtainment unit is equal to or larger than the past revocation

number stored by the revocation number storage unit (Column 7,

lines 5-44; and Column 8, lines 16-19; valid updates to blacklists

including equivalent or increasing start dates, expiration dates,

and/or sequence numbers).

Regarding Claim 13,

Claim 13 is a communication system comprising the

certificate issuing apparatus of claim 8, the communication

apparatus of claim 1, and the server apparatus discussed in both

claims 1 and 8, and is therefore rejected for the same reasons as

the combination of claims 1 and 8.

Conclusion

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to JEFFREY D. POPHAM whose telephone

number is (571)272-7215. The examiner can normally be reached on M-F 9:00-

5:30.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The

fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

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direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey D Popham
Examiner
Art Unit 2437

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